

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1. (Currently Amended) A method of treating an exhaust gas of a lean-burn reciprocating engine containing NO_x, which method comprising sorbing NO_x on at least one NO_x sorber when the exhaust gas is lean, intermittently contacting the at least one NO_x sorber with ~~an agent~~ a reductant comprising hydrocarbon effective to convert NO_x to N₂ thereby to regenerate the at least one NO_x sorber and feeding effluent from said intermittent contacting step to an engine inlet and further comprising, during regeneration, injecting the reductant to the exhaust gas at an inlet of the at least one NO_x sorber to convert NO_x to N₂.
2. (Currently Amended) A method according to claim 1, wherein the sorbing step comprises simultaneously contacting the lean exhaust gas with at least two NO_x sorbers arranged in parallel, and wherein the intermittently contacting step comprises intermittently contacting fewer than all of the at least two NO_x sorbers simultaneously with said ~~agent~~ reductant.
3. (Previously Presented) A method according to claim 1, wherein an exhaust gas flow through the at least one NO_x sorber being regenerated during the intermittently contacting step is less than in a NO_x sorber not being regenerated, wherein substantially all of the effluent from the at least one NO_x sorber being regenerated by said intermittent contacting step is fed to the engine inlet.
4. (Canceled)
5. (Currently Amended) A method according to claim 41, wherein the non-selective ~~reductant~~ hydrocarbon is engine fuel.
6. (Canceled)
7. (Previously Presented) A method according to claim 1, further comprising catalytically oxidizing HC and CO to steam (H₂O_(g)), CO₂ and/or NO to NO₂ upstream of the at least one NO_x sorber.

8. (Previously Presented) A method according to claim 7, further comprising collecting particulate matter (PM) between the step of NO oxidation and the step of NO_x sorption.

9. (Currently Amended) A lean-burn reciprocating engine emitting exhaust gas containing NO_x and having a treatment system comprising at least one NO_x sorber for sorbing NO_x when the exhaust gas is lean, means for intermittently contacting the at least one NO_x sorber with an agent a reductant comprising hydrocarbon effective to convert NO_x to N₂ to regenerate the at least one NO_x sorber and means for feeding effluent from said intermittently contacting step to an engine inlet wherein the at least one NO_x sorber is associated with injector means for introducing the reductant to the exhaust gas at an inlet of the at least one NO_x sorber during regeneration.

10. (Previously Presented) An engine according to claim 9, further comprising exhaust gas recirculation (EGR) means for use in normal or occasional modes of operation.

11. (Currently Amended) An engine according to claim 9, wherein the at least one NO_x sorber comprises at least two NO_x sorbers arranged in parallel, and further comprising a means for selectively contacting fewer than all of the at least two NO_x sorbers with the agent reductant.

12. (Previously Presented) An engine according to claim 11, further comprising means for reducing an exhaust gas flow to one of the at least two NO_x sorbers when the one of the at least two NO_x sorbers is being regenerated relative to an exhaust gas flow to another NO_x sorber not being regenerated, and means for feeding to the engine inlet substantially all of an effluent from the one of the at least two NO_x sorbers being regenerated.

13. (Canceled)

14. (Currently Amended) An engine according to claim 9, wherein the agent hydrocarbon comprises a supply of agent hydrocarbon.

15. (Canceled)

16. (Currently Amended) An engine according to claim 14, wherein the agent hydrocarbon is engine fuel.

17. (Currently Amended) An engine according to claim ~~139~~, further comprising a common-rail fuel injection system with a branch to the injector of the at least one NO_x sorber.
18. (Canceled)
19. (Currently Amended) An engine according to claim 9, further comprising means for controlling the intermittent regeneration of the at least one NO_x sorber and a means for feeding the effluent from the at least one NO_x sorber being regenerated to the engine inlet, wherein the amount of ~~regeneration agent~~reductant released into the atmosphere is reduced relative to a similar engine lacking the means for feeding the effluent from the at least one NO_x sorber being regenerated to the engine inlet.
20. (Previously Presented) An engine according to claim 9, wherein the system further comprises an oxidation catalyst disposed upstream of the at least one NO_x sorber for catalysing the oxidation of HC and CO to steam and CO₂ and/or NO to NO₂.
21. (Previously Presented) An engine according to claim 20, wherein the system further comprises a particulate matter (PM) filter located between the NO oxidation catalyst and the at least one NO_x sorber.
22. (Canceled)
23. (Previously Presented) An engine according to claim 10, wherein the EGR means comprises a pump.
24. (Canceled)
25. (New) A method according to claim 3, wherein the exhaust gas flow through the at least one NO_x sorber being regenerated during the intermittently contacting step is a fraction of the total exhaust gas flowing.
26. (New) An engine according to claim 12, wherein the means for reducing an exhaust gas flow to the one of the at least two NO_x sorbers being regenerated is a fraction of the total exhaust gas flowing.